

Should we make patients and nurses aware of their drug administration problems and training needs?

Anette Lampert^{1,2}, Walter E. Haefeli^{1,2}, Hanna M. Seidling^{1,2}

¹Department of Clinical Pharmacology and Pharmacoepidemiology, ²Cooperation Unit Clinical Pharmacy, University of Heidelberg, Im Neuenheimer Feld 410, 69120 Heidelberg

Objectives

We hypothesized that asking medicine users for their perspective on drug administration errors may identify contributing factors to potential risks, such as inattention or poor motivation. In addition, considering an individual's perspective on administration errors may detect individual needs for assistance and training.

Therefore, we qualitatively assessed medicine users' (i.e. patients, family caregivers, and nurses) experiences with drug administration.

Methods

During October 2013 and April 2014, we conducted three focus group discussions with eleven patients and family caregivers, two focus group discussions with ten nurses from a nursing home, and one focus group discussion with four nurses from a university hospital. After verbatim transcription of audio and video recordings we conducted a qualitative content analysis [1]. The participants' statements were categorized into: (1) administration problems with different dosage forms, (2) potential causes of problems during the drug administration process, (3) tips and tricks of the participants for a more comfortable use of the dosage form or medicinal product, (4) experience with previous drug administration trainings, and (5) ideas and expectations regarding the format of future drug administration trainings.

Results

Reported administration problems

Patients, family caregivers, and nurses reported administration problems with tablets, capsules, oral liquids, insulin pens, syringes, infusions, inhalers, transdermal patches, and eye drops at almost each conceivable step in the drug administration process. However, many participants were rather not aware that the administration process may contain pitfalls they should pay attention to. Therefore, instead of reporting difficulties with drug administration, many participants trivialized correct drug administration.

"The refill and activation of the inhaler was not feasible. Finally, I discarded the device."

"I have never thought about it."

"I don't have problems!"

"I don't think about problems, - so I don't have them!"

"Nobody explained to me how to use an inhaler in the beginning."

"Sometimes tablets are too big or too rough to swallow"

"My eye-drops are very oily which aggravates correct application."

"The doctor and pharmacist should tell me how to administer my medication!"

Perceived causes of problems

Patients and family caregivers mainly considered the drug as the cause of administration problems. In contrast, nurses also considered conditions related to the patient and the healthcare system as causes for drug administration problems. In particular, dementia and dysphagia and the notorious lack of time were considered to complicate drug administration. In addition, look-alike packages, sound-alike drugs, the constant change between generics, ambiguous prescribing, or poor communication during change of shifts aggravated the risk for mistakes particularly during drug preparation. However, although it became evident that many problems originated from a lack of knowledge, our participants did not consider their own drug administration skills at fault.

Experience with previous trainings and expectations towards future interventions

Most participants have not been trained in specific administration techniques of challenging dosage forms they were using (i.e., eye-drops, transdermal patches, splitting of tablets, pre-filled syringes, or oral liquids). For future interventions the participants agreed that, depending on the dosage form, the format and content of the training should be tailored to the individual drug administration problem. Most participants appreciated the idea of a practical training.

Discussion

It became alarmingly evident that many medicine users underestimate the risk of drug administration errors. Subsequently, they will not scrutinize their daily drug administration routine and will not ask for help. Indeed, patients and nurses frequently overestimate their knowledge about correct drug administration [2,3]. The urgent questions is:

"Should we make patients and nurses aware of their drug administration problems and training needs?" The resulting challenge is to motivate unaware medicine users to participate in an intervention to improve their drug administration skills. Therefore, a joint decision-making that considers a medicine user's perceived need for assistance and training might play a

pivotal role in motivating medicine users to recognize their active role in the drug administration process. This insight constitutes an essential prerequisite for an intervention to improve drug administration competencies.

Conclusion

Although, the perceptions of medicine users may be inaccurate, the perception is a person's reality and will influence the motivation for a behavioral change. Healthcare providers must consider individual perspectives on drug administration problems and perceived causes, assist medicine users' to identify the true cause of a problem, and provide individualized support.

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